



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,932	07/15/2003	Rebecca L. Engel	038469-0210	6826
26371	7590	03/07/2007	EXAMINER	
FOLEY & LARDNER LLP 777 EAST WISCONSIN AVENUE MILWAUKEE, WI 53202-5306			THANH, LOAN H	
		ART UNIT	PAPER NUMBER	
		3763		

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/619,932	ENGEL ET AL.	
	Examiner LoAn H. Thanh	Art Unit 3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 December 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3,6-8,10,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,6-8,10,12 and 13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 12/11/06.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

The Quinn ( 5,201,723) rejection as previously applied has been withdrawn in view of applicant's amendment filed 12/11/07.

The claim objections have been withdrawn in view of applicant's amendment filed 12/11/07.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,6-8,10,12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginsburg (US 5,180,364).

Ginsburg discloses a cannula comprising a body having a proximal and distal end, a lumen therethrough, and a plurality of inlet apertures in the wall of the cannula to allow fluid flow through the lumen. See figures 1A and 10. Ginsburg disclosed the apertures/passageways maybe any type of opening , such as holes, slits vents and the like which afford communication between the central lumen 16 and a region exterior to the cannula/catheter 10. However, Ginsburg does not explicitly show these openings to have a major and minor axis, which is perpendicular to the longitudinal axis of the cannula/catheter 10 in figures 1a or 10. Ginsburg shows a different embodiment figure

1B, which has a plurality of holes of any shape size and position along the distal end 22 of the catheter body 214. The passageways are also disclosed as randomization in configuration as well as location. Specifically , Ginsburg shows an aperture which is eye-shaped, or a shape having two corners having a major axis which is perpendicular to the longitudinal axis of the catheter or cannula. Ginsburg discloses it is well within the scope of one of ordinary skill to modify invention with the alternatives to the size shape and location. See column (col.) 5, lines 14-34, col. 6, lines 52-55, and col. 7, lines 55-64. Thus, it would have been obvious to one of ordinary skill in the art of catheter/cannula to provide oval apertures which are taught by Ginsburg in the uniform configuration ( evenly distributed) with a major axis that is perpendicular to the longitudinal axis of the catheter as mere alternatives of different types, size or shape of apertures. Further, with respect to claims 7 and 13, it would have been obvious to modify the rows to provide them in an offset position for the same reasons as above in order to provide a plurality of fluid flow to the target tissue for providing emergency perfusion of a desired vessel.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1,3,6-8,10,12-13 have been considered but are not persuasive.

With respect to applicant's arguments on page 5 of his response that Ginsburg's device is not disclosed as a venous cannula "for use with a cardiac bypass system", or that "Ginsburg does not teach passageways of this configuration" or that that Ginsburg

does not teach the plurality of passageways are "to prevent buckling or kinking" the Examiner would like to remind applicant that the claims of the present invention is directed to device claims. With respect to the "sized and adapted for connection" language, lacking any structurally distinguishing features the device of Ginsburg is functionally capable of being sized and adapted for connection as applicant has claimed. With respect the configurations of the passageways, Ginsburg does show/teach the configuration of an eye-shape. With this teaching, it would be obvious to one of ordinary skill in the art to modify the shapes since it is not critical. Applicant further discloses that his shape/configuration is merely preferable. With respect to Applicant's arguments it appears that applicant is only arguing the intended use of the device. In response to applicant's argument that Ginsburg et al. does not disclose a venous cannula , a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Furthermore, the claims do not have enough structural language to overcome the reference.

Applicant further argues that the language of applicant ( eye , eye shaped or corner or arcuate) does not appear in the Ginsburg reference. Applicant should be aware that an inventor/attorney is his own lexicographer. It is within the figures and the disclosure/description of a reference that the Examiner is relying upon and not just mere "exact" words or phrases.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Robinson et al. ( US 6,726,651) discloses a cannula which is for performing cardiopulmonary bypass which has openings/apertures 1210 at the distal end. See col. 26, lines 29-34. Robinson et al. discloses that the openings can be single or multiple with carrying sizes and shapes.

Lindsay ( US 5,616,137) teaches eye shape apertures (see figures 8-11), however, the flow would not be permitted to flow inside the lumen from outside the tube since the apertures are normally closed as slits until the pressure within the lumen is high enough to force open the slits.

Savage et al. ( US 6,669,679) discloses eye shaped apertures however the major axis is parallel to the axis of the lumen.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LoAn H. Thanh whose telephone number is (571) 272-4966. The examiner can normally be reached on Mon. - Fri. (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on (571) 272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LoAn H. Thanh  
Primary Examiner  
Art Unit 3763

LT